BOTANICAL NOTES FROM THE TECHNOLOGICAL MUSEUM, SYDNEY.

No. I.

By J. H. MAIDEN, F.L.S., AND R. T. BAKER, F.L.S.

(Plate xv.)

ANONACEÆ.

MELODORUM (UNONA) LEICHHARDTH, F.V.M.

A plant showing an entire absence of tomentum is found near Tintenbar, Richmond River, N.S.W., collected by Mr. Bäuerlen, Botanical Collector to the Technological Museum, Sydney. It may not here be out of place to refer to Bentham's query regarding the flexuose nature of the branches of this species (B.Fl. Vol. i. 52). The species is mentioned by other authors except Mr. Bailey (Syn. Qd. Flora) as a tree, but all specimens (which include both the typical form and varieties) examined by us from the Richmond River are from plants described as simple climbers or "straggling vines." The plant goes by the name of "Vinegar Bottles," owing to the acidulousness of its fruits.

It will be observed that the above notes mainly confirm the correctness of Mueller's pre-Flora Australiensis description of *Unona Leichhardtii (Fragmenta*, iii. 41).

LEGUMINOSÆ.

HOVEA ACUTIFOLIA, A. Cunn. in G. Don, Gen. Syst. ii. 126, and B.Fl. ii. 174.

The pod of this species is undescribed in the above and later works, Bentham expressly stating "pods not seen." In the

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analysis of the genus the species is placed with those having a "pod tomentose or villous," a classification which of course could only be tentative under the circumstances.

The pods, accompanied by flowering specimens, have been received from Tintenbar (W. Bäuerlen) and Port Macquarie (G. R. Brown), and are 4-5 lines long, sessile and quite glabrous, except on the sutures, which are margined with short rusty hairs just like the pods of H. linearis and other so called glabrous pods. This will necessitate a slight alteration in Bentham's classification, H. acutifolia being removed from the "pod tomentose" group and placed with H. heterophyllus and H. linearis, both having glabrous pods. Mr. Bailey (Syn. Qd. Flora, p. 96) has recorded that the pods of H. acutifolia are nearly glabrous, but the above notes are necessary as a matter of classification.

GUILANDINA (CAESALPINIA) BONDUCELLA, Linn.

This species is recorded in Baron Mueller's Census as occurring in this colony, but we cannot trace any definite locality in N.S.W. given for it. It has been sent by Mr. Bäuerlen from Tintenbar.

ACACIA UNDULIFOLIA, Fraser.

This species is now recorded from Mudgee over the Dividing Range and Capertee Valley. The localities given by us for plants belonging to to the Mudgee district supplement Mr. Hamilton's local flora, Proc. (2), ii. 259.

ACACIA LEPROSA, Sieb.

This species occurs sparingly at Woodville, about 10 miles south of Ulladulla. This is now its most northern locality.

ACACIA MELANOXYLON, R.Br.

This species has been received from the following localities :---North of Port Jackson; Mudgee district, llford (R.T.B.); Glen Innes (Deverell); Booloomboyt, Myall Lakes (A. Rudder); Ballina (W. Bäuerlen).

ACACIA LONGIFOLIA, Willd.

Trees belonging to this species are found in the gullies of the upper course of the Goulburn River, N.S.W., with remarkably long phyllodes varying from 16 to 20 inches.

ACACIA GLAUCESCENS, Willd.

This species has been found 27 miles south of Sydney at Helensburgh (Mr. H. O. Rotton); also by Mr. H. Deane and Rev. T. V. Alkin at George's River, near Liverpool, 22 miles south of Sydney; this is now the nearest recorded locality to Sydney.

ROSACEÆ.

POTENTILLA ANSERINA, Linn.

This species, hitherto only recorded from South Australia, Tasmania, and Victoria, has been found at Bibbenluke Station, Cooma, by Miss Edwards, and also between Bombala and Cooma by Mr. T. C. Burnell. On the Snowy River it has been collected by Mr. W. Bäuerlen.

MYRTACEÆ.

DECASPERMUM (NELITRIS) PANICULATUM, Baillon, B.Fl. iii. 279.

A small tree 15 to 20 feet high at Tintenbar, Richmond River, N.S.W. (W. Bäuerlen). Previously only received from Queensland.

EUCALYPTUS AMYGDALINA, Labill.

A broad-leaved variety of this species has been found as far north as Rylstone, where it goes by the name of Blue Peppermint; not common. Height 40 feet, diameter 15 inches.

EUCALYPTUS PIPERITA, Sm.

Peppermint. This species extends from Rylstone to Capertee. Not in Mr. Hamilton's list.

EUCALYPTUS PUNCTATA, DC.

This species extends from Rylstone to Capertee. Not in Mr. Hamilton's list.

EUCALYPTUS SALIGNA, Sm., var.

The Grey Gum of the north coast districts. This gum yields a timber of economic importance, as it bears the highest local reputation for durability, and it is one of the best known ironbark substitutes. It has also certain affinities to E. viminalis. It became a matter of importance a few months ago to determine its botanical position with precision, and we show it to be a variety of *Eucalyptus saligna* (usually known as Blue or Flooded Gum in New South Wales), and we indicate its relation to the typical species and to E. viminalis, Labill.

GREY GUM.

Flower-buds: Generally resembling E. saligna, but operculum less drawn out to a beak, the calyx and operculum being far more globular and also smaller, operculum dome-shaped.

Flowers: Anthers most like those of *E. saligna*. Blossoms in January and February. Upper Gloucester (Rudder).

Fruits: Strongly resemble in outward appearance those of a small-fruited form of a Manna Gum, such as is found at Bombala and other places in southern New South Wales. Fruits in tens (usually). Rim broader, and its edge sharper. Fruits usually rather smaller and more conical or angular in shape. Common pedicel very flat and about an inch long. Invariably pedicellate as far as seen.

Leaves: Resemble E. saligna as regards consistence and venation. They are very different from those of E. viminalis.

Bark: Invariably deciduous to the roots. Grey, with a loose mealy surface.

Timber: A most lasting timber. "I have seen a post, 40 years in the ground, which shows no sign of decay" (Rudder). Is red, and might easily be mistaken for ironbark. *Habitat*: Open and scrubby (not alluvial) forests, north coast districts.

E. SALIGNA.

Flower buds: Somewhat resembling *E. viminalis*, but the calyx more attenuate and flattened.

Flowers : Blossoms about April. Upper Gloucester (Rudder).

Fruits: Fruits larger. Rim thinner. Valves set deeper in calyx tube. Peduncles usually longer, broader and flatter. Pedicels broader and flatter and sometimes almost absent.

Leaves: "Lateral veins quite numerous, subtle and almost transversely spreading, the two longitudinal veins only slightly or hardly removed from the edge" (F.v.M.)

Bark: (Blue or Flooded Gum of N.S.W.) Varies a good deal in different districts in the extent to which the fibrous bark extends up the stem, *i.e.*, from a foot or two to perhaps 40 or 50 feet. Following is a description of the bark in the districts in which Grey Gum also occurs:—Bark usually almost milk-white, or a very pale bluish-grey, and quite smooth, except on the butt, where it is dark brown, rough and persistent.

Timber : Pale red, not specially lasting.

Habitat: Near streams, and generally on alluvial and moist land, coast district and Dividing Range.

E. VIMINALIS.

Flower buds: No observations.

Flowers: No observations.

Fruits: In threes.

Leaves: "Lateral veins rather subtle, crowded, pinnately spreading, the circumferential vein rather removed from the edge of the leaf" (F.v.M.).

Bark: (Manna Gum; White Gum.) Deciduous.

Timber: A very inferior timber, liable to gum veins, and very perishable.

Habitat: No observations.

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RUBIACEÆ.

PSYCHOTRIA NEMATOPODA, F.V.M.

Baron von Mueller, in mentioning the occurrence of this plant at Rockingham Bay, Queensland (*Fragmenta*, ix. 184), states— "Planta Novam Austro-Cambriam attinet." It is, however, not recorded in the "Census" as a New South Wales plant. Mr. Bauerlen has sent this species to the Museum from North Creek, Ballina, Richmond River, N.S.W. It is a small tree 8-12 feet high, with reddish fruits.

COMPOSIT.E.

OLEARIA (ASTER) IODOCHROA, F.V.M.

This species has been collected as far north as Cooma, N.S.W., by Miss F. Harpur.

EPACRIDE.E.

EPACRIS CORIACEA, A. Cunn.

Waterfall, 24 miles south of Sydney (H. Deane); Helensburgh, 27 miles south of Sydney (H. O. Rotton).

SAPOTACE.E.

SIDEROXYLON (ACHRAS) MYRSINOIDES, Benth.

Specimens collected by Mr. W. Bauerlen, at Lismore, Richmond River, N.S.W., have their flowers on pedicels exceedingly short or even sessile, the length of pedicel in the typical form being 3 to 5 lines long.

SCROPHULARINE.E.

VERONICA DERWENTIA, Andr.

This plant has been found by Miss Liddle at Lue, Mudgee district, N.S.W. Not in Mr. Hamilton's list.

LAURINE.E.

TETRANTHERA FERRUGINEA, R.Br., B.Fl. v. 305.

Syn.-Litsæa Hexanthus, A. de Juss.

This species, hitherto only found in Queensland, has been sent by Mr. Bäuerlen from Alstonville, Richmond River, where it is a small tree 20-40 feet high and with a stem diameter of 9-12 inches.

LITS.EA DEALBATA, Nees. var. rufa, B.Fl. v. 308.

This variety has only hitherto been recorded (as to New South Wales) from the Blue Mountains. Mr. W. Bäuerlen has sent it from Alstonville, Richmond River, where it is a small tree 30-40 feet high and with a diameter of 6-10 inches

PROTEACE.E.

GREVILLEA CAPITELLATA, Meissn.

Helensburgh (H. O. Rotton); Waterfall (H. Deane).

EUPHORBIACE Æ.

PHYLLANTHUS FERDINANDI, var. supra-axillaris.

This variety, hitherto only recorded from Queensland, has been received from Ballina and Tintenbar, Richmond River (W. Bäuerlen), where its height is 20-30 feet, diameter 9-15 inches; in this locality it goes by the name of Water Gum, perhaps through confusion with *Tristania*.

AMPEREA SPARTIOIDES, Brong. (Plate xv. figs. 1*a-c.*)

In the Flora Australiensis the female flowers of A. spartioides are referred to as "solitary, either alone or surrounded by a few males," and so far as known this is not qualified by other botanists. A number of specimens obtained from the head of Double Bay, Port Jackson (W. W. Froggatt), have the female flowers shortly pedicellate, the pedicel growing till a fruit matures, when it attains to a length of over half an inch; and in scarcely any instance are they solitary, but generally three or four clustered at the nodes. We may observe that all the specimens of this species hitherto seen by us are monœcious.

FILICES.

BLECHNUM CARTILAGINEUM, Swartz. (Plate xv. fig. 2.)

Specimens of this fern from Mr. W. Bäuerlen, Richmond River, N.S.W., have their pinnæ bifid at the extremities, a variation which does not appear to have been hitherto recorded in connection with this species.

BLECHNUM SERRULATUM, Rich.

A form of this fern collected by Mr. W. Bäuerlen (Ballina, Richmond River, N.S.W.) has exceptionally attenuate pinnæ, each pinna tapering its entire length.

EXPLANATION OF PLATE.

- Fig. 1.—a. Part of stem, showing pedicellate female flowers of Amperea spartioides (nat. size).
 - b. Female flowers (magnified).
 - c. Capsule (magnified).
- Fig. 2.—Pinnæ of a frond of *Blechnum cartilagineum*, showing bifid and trifid terminations (nat. size).